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09/997,299	11/29/2001	Thomas G. Xydis	65,116-038	4354

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EXAMINER

PICH, PONNOREAY

ART UNIT PAPER NUMBER

2135

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/997,299

Applicant(s)

XYDIS, THOMAS G.

Examiner

Ponnoreay Pich

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2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12,14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
KAMBIZ ZAND  
PRIMARY EXAMINER

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/30/2006 has been entered.

Applicant's amendments and supplemental amendments have been considered. Claims 1-2, 4-12, and 14-15 are pending. Claims 3 and 13 were cancelled. Applicant's arguments directed towards the amended claims were also considered, but are moot in view of new rejections presented below. Any well known art statements not specifically traversed by applicant are taken as admittance of prior art as per MPEP 2144.03.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 4-12, and 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. As per claim 1, line 2 recites "at least one first electronic device (18)". Later in claim 1 and in its dependent claim, the claims recite "the first electronic device (18)". The examiner notes that the language used in line 2 of claim 1 implies that

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there could be more than one first electronic device (18). The language used later, i.e. the first electronic device, does not specify which of the possibly multiple first electronic devices of line 2 is being referred. This renders the claim indefinite. The examiner assumes that when a claim recites "the first electronic device", applicant actually meant "the at least one first electronic device". A similar problem exists with regards to claim 1's usage of "at least one access point (20)" in lines 2-3 and "the access point (20)" later in claim 1 and its dependent claim. Similar problems exist with regards to claim 10. For instance, applicant refers to "at least one first electronic device (18)" in line 2. Later, applicant refers to "the first electronic devices (18)" and "the first electronic device (18)". The examiner respectfully suggest applicant review the pending claims to make sure terms used are consistently throughout, i.e. make sure there are not terms which implies more than one of an item while later terms contradicts there being plurality.

2. Any claims not specifically addressed are rejected by virtue of dependency.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis et al (US 5,963,599) in view of He et al (US 6,088,451) and further in view of Hanson et al (US 6,546,425).

**Claim 1:**

Curtis discloses:

1. Transmitting a radio frequency (RF) signal from the at least one electronic device (Fig 5A-5B and col 8, lines 8-13).
2. Detecting the RF signal from the at least one first electronic device with the at least one access point (Fig 5A and col 8, lines 8-13).
3. Transmitting a radio frequency (RF) signal from the second electronic device (Fig 5A).
4. Detecting RF signal from the second electronic device with the same at least one access point (Fig 5A).
5. Enabling the at least one first electronic device to allow the user having the second electronic device to access the network and the at least one first electronic device in response to the at least one access point detecting the RF signals from both the at least one first and the second electronic devices (Fig 5A-5B and col 7, lines 63-col 8, line 13).

Note that Curtis's invention is a truncated maximum likelihood sequence estimator. However, this invention of Curtis is used by a wireless local area network which discloses the above limitations (Curtis: col 7, lines 63-66). This implies that the

above limitations were well known in the art of wireless networking at the time Curtis's and applicant's inventions were made.

Curtis does not disclose:

1. Transmitting user information to identify the user from the second electronic device.
2. Retrieving user privileges for the user from a user database based on the user information.
3. Enabling access to the network and the at least one first electronic device based upon the user privileges.
4. Disabling the first electronic device in response to either of the signals from the at least one first and the second electronic devices no longer being detected by the at least one access point to prevent access to the network and the at least one first electronic device.
5. Re-enabling the at least one first electronic device in response to the at least one access point detecting the RF signals from the at least one first and the second electronic devices based upon the user privileges.

However, He discloses transmitting user information to identify the user from a second electronic device (col 8, lines 35-64); retrieving user privileges for the user from a user database based on the user information (col 8, line 65-col 9, line 61); and enabling access to the network and the at least one first electronic device based upon the user privileges (col 8, line 65-col 9, line 61).

Note that He's teachings are towards a networking environment, though not necessarily a wireless networking environment. However, the examiner asserts that it would have been obvious to one of ordinary skill in the art to incorporate He's network teachings within a wireless networking environment such that a second electronic device used by a user would have to transmit user information identifying the user and user privileges for the user are retrieved from a database based on the transmitted user information to determine the types of privileges to enable for the user on the wireless network. One of ordinary skill would have been motivated to incorporate such teachings from He because it would result in a more secure wireless networking environment.

He also does not disclose items 4 and 5 above, which were not explicitly disclosed by Curtis. However, one of ordinary skill should appreciate that if an access point is unable to detect the RF signal from either the at least one first or the second electronic device, since access to the network and at least one first electronic device is granted based on being able to detect a signal, then access would be disabled and would be re-enabled once the signals were detected again. From the perspective of the second electronic device losing access to either the network or the first electronic device is the same as if the first electronic device was disabled. Further, Hanson discloses that at the time applicant's invention was made, limitations 4 and 5 above, which were not explicitly disclosed by Curtis, were well known in the art of wireless networking (col 2, lines 7-29). At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to further modify the wireless network disclosed by Curtis according to the limitations recited in claim 1. One of ordinary skill

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would have been motivated to incorporate Hanson's teachings because by definition, if either of the signals which allow access between a networking device and the network, including the devices on the network, are no longer detected, then access has been disabled. One of ordinary skill would have been motivated to re-enable access once the signals have been detected again because it is standard practice in the art of computing to be able to reconnect to networks and networking devices once networking pathways are reestablished.

Claims 2, 4-5, 7, 15, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis et al (US 5,963,599) in view of He et al (US 6,088,451) and Hanson et al (US 6,546,425) and further in view of Meier (US 5,673,031).

**Claim 2:**

Curtis does not disclose the steps of measuring a signal strength for the RF signals from both the at least one first and the second electronic devices, comparing the signal strengths to a predetermined threshold, and enabling the at least one first electronic device in response to both of the signal strengths being above the predetermined threshold.

However, Curtis discloses an access point configured to detect RF signals from a nearby device (Fig 5A and col 8, lines 8-13). Also, Meier discloses detecting signal strengths in a wireless network and only considering signals that meet a minimum threshold (col 5, lines 8-20). Meier also discloses using signal strength to decide



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whether an electronic device—i.e. a mobile unit, should enable a connection to a base station--i.e. an access point (col 5, lines 13-26). Note that although Meier does not teach that the RF signals from the mobile unit is measured against a threshold value, because Meier discloses the concept of measuring the strength of an RF signal, it would be obvious to one of ordinary skill to measure the signal strength from either the mobile unit or the base unit (i.e. access point). The choice of having either the mobile unit/electronic device or base unit/access point decide whether to enable a connection based on the signal strength is arbitrary since applicant's specification did not disclose any particular reason for choosing one method over the other. If one of ordinary skill decides to have the mobile unit decide whether a connection should be made; then one skilled should appreciate that the mobile unit would need to detect and measure the signal strength from the base unit. If one of ordinary skill decides that the base unit should decide whether to enable a connection, then one skilled should appreciate that the base unit needs to detect and measure the signal strength from the mobile units. In most wireless networks, both the mobile unit and the base unit each detect an RF signal and make a decision.

It would have been obvious to one of ordinary skill at the time the applicant's invention was made in light of Meier's teachings to further modify the method of claim 1 according to the limitation recited in claim 2. One of ordinary skill would have been motivated to do so as Meier's teachings allows for the connection of an electronic device to an access point with the strongest signal strength (col 5, lines 20-26). A strong signal coming from a specific access point to a mobile electronic device means

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that a strong signal from the mobile device must also go to the specific access point. A stronger signal between an access point and an electronic device usually means more reliable and faster communication between an electronic device, the access point, and any other devices attached to the access point.

**Claim 4:**

Curtis disclose the step of transmitting data from either one of the at least one first and the second electronic device to the least one access point and routing data from the at least one access point to the other electronic device (Fig 5A, and col 8, lines 8-13).

**Claim 5:**

Curtis discloses the step of activating either one of the at least one first and the second electronic device to transmit the data directly to the other in response to instructions from the at least one access point thereby bypassing the at least one access point (Fig 5B and col 8, lines 8-13).

**Claim 15:**

Curtis does not explicitly disclose wherein the step of disabling the at least one first electronic device is further defined as disabling the at least one first electronic device in response to either one of the signal strengths from the at least one first electronic device and the second electronic devices being measured below the predetermined threshold by the access point to prevent access to the network and the at least one first electronic device. However, Hanson implicitly discloses this limitation (col 2, lines 7-29).

Note that applicant's specification does not define what is a threshold. Hanson discloses that when a mobile device moves out of wireless range, it is disconnected from the wireless network. The second device being disconnected from the network is essentially the same thing as the at least one first electronic device being disabled since the at least one first electronic device can no longer be connected to via the second electronic device. One of ordinary skill should appreciate that a signal not being able to be detected is below the threshold of what can be detected. One of ordinary skill would incorporate Hanson's teachings for the same reasons given in claim 1.

**Claim 7:**

Curtis does not explicitly disclose the steps of detecting the RF signals from the at least one first and the second electronic devices by a different access point, measuring the RF signal strengths at the different access point, and re-enabling the first electronic device in response to the RF signals from the first and the second electronic device being above the predetermined threshold.

However, Meier discloses detecting signal strengths in a wireless network and only considering signals that meet a minimum threshold (col 5, lines 8-20). Meier also discloses using signal strength to decide whether an electronic device—i.e. a mobile unit, should enable a connection to a base station--i.e. an access point (col 5, lines 13-26). Meier also discloses re-evaluating the base station/access point that an electronic device is connected to based on re-evaluating RF signal strength and connecting to a different base station or access point (col 5, line 66-col 6, line 11).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made in light of Meier's teachings to further modify the method of claim 15 according to the limitations recited in claim 7. One of ordinary skill would have been motivated to do so as Meier's teachings allows for the connection of an electronic device to an access point with the strongest signal strength once one becomes available (col 5, lines 20-26). A stronger signal means more reliable communications between the devices.

**Claim 8:**

Curtis does not disclose loading user data into each of the access points in response to at least one access point measuring the RF signal from the second electronic device as being above the predetermined threshold. However, this is implicitly disclosed by Hanson (col 2, lines 7-29).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis et al (US 5,963,599) in view of He et al (US 6,088,451) and Hanson et al (US 6,546,425) and further in view of Meier (US 5,673,031) and van Bokhorst et al (US 6,192,230).

**Claim 6:**

Curtis and Meier do not disclose the step of activating either one is further defined as transmitting timing intervals from the access point to either one of the first and the second electronic devices and activation the one during the timing intervals to detect the other. However, van Bokhorst discloses a wireless network wherein

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synchronizing messages and traffic indicator information are broadcasted to stations (i.e. electronic devices) which are identified to stay awake for a time period to receive one or more data messages (col 1, line 57-col 2, line 6). In light of van Bokhorst's teachings, it would have been obvious to one of ordinary skill in the art to further modify Curtis and Meier's combination method according to the limitation recited in claim 6. One of ordinary skill would have been motivated to do so as van Bokhorst discloses that his teachings would allow for a wireless communication system/network to have a power saving function (col 1, lines 53-56). Note that this is a useful feature for anyone who is either environmentally conscious or wants to lower his/her power bills.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis et al (US 5,963,599) in view of He et al (US 6,088,451) and Hanson et al (US 6,546,425) and further in view of Meier (US 5,673,031) and Stewart (US 5,969,678).

**Claim 9:**

Curtis does not disclose synchronizing the user data from the different access points to the at least one first electronic device in response to the RF signal from the second electronic device being above the predetermined threshold at the different access point.

However, Stewart discloses the step of synchronizing the user data from the different access points to the first electronic device (col 6, lines 29-39). Stewart does

not disclose said step being done in response to the RF signal from the second electronic device being above the predetermined threshold at the different access points.

However, Meier discloses detecting the RF signal strength in a wireless network and only doing something if the RF signal strength is above a certain threshold (col 5, lines 13-26). It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to further modify the method of claim 8 in light of according to the limitations recited in claim 9 in light of Stewart's teachings. One of ordinary skill would have been motivated to do so because it would prevent a user from gaining access to resources in a network before being authenticated.

Claims 10-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahl (US 6,629,151) in view of He et al (US 6,088,451) and Porter et al (US 6,745,013) and further in view of Hanson et al (US 6,546,425).

**Claim 10:**

Bahl discloses:

1. Transmitting a radio frequency signal from the second electronic device to establish communication with at least one access point (Fig 3 and col 5, lines 50-64).
2. Detecting the RF signal from the second electronic device with a first and a second access points (Fig 3 and col 5, lines 50-64).

3. Enabling a predetermined number of first electronic devices in response to the detected RF signal strength being above a predetermined threshold to allow access to the network and the first electronic device (Fig 3; col 5, lines 50-58 and; col 8, lines 49-64).
4. Transmitting data from the second electronic device through the access point to the predetermined number of first electronic devices thereby establishing communication between the first electronic devices and the second electronic device (col 5, lines 50-58; col 8, lines 49-64; and col 16, lines 5-11).

Bahl does not disclose:

1. The transmission from the second electronic device including user information to identify the user.
2. Measuring the strength of the RF signal from the second electronic device at the first and second access points.
3. Comparing a maximum measured RF signal strength by either of the first and second access points to a predetermined threshold.
4. Retrieving user privileges for the user from a user database based upon the user information.
5. Enabling a predetermined number of first electronic devices based upon the user privileges.
6. The access point measuring the maximum RF signal strength.

7. Disabling the at least one first electronic device in response to the RF signal strength from the second electronic device being measured below the predetermined threshold to prevent access to the network and the at least one first electronic device.
8. Re-enabling the predetermined number of first electronic devices in response to the detected RF signal strength being above the predetermined threshold by either of the first and second access points and based upon the user privileges.

However, He discloses the transmission from a second electronic device including user information to identify the user (col 8, lines 35-64); retrieving user privileges for the user from a user database based on the user information (col 8, line 65-col 9, line 61); and enabling access to a predetermined number of first electronic device based upon the user privileges (col 8, line 65-col 9, line 61). Further, Porter discloses access points being used to measure the (maximum) RF signal strength from a second electronic device and comparing the maximum measured RF signal strength measured by the access point to a predetermined threshold (col 2, lines 7-11). Hanson discloses disabling the at least one first electronic device in response to either the RF signal strength from the second electronic device being measured below the predetermined threshold to prevent access to the network and the at least one first electronic device; and re-enabling the predetermined number of first electronic devices in response to the detected RF signal strength being above the predetermined threshold



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by either of the first and second access points and based upon the user privileges (col 2, lines 7-29).

These teachings by He, Porter, and Hanson read on the limitations not met by Bahl. At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Bahl's invention according to the limitations recited in claim 10. One of ordinary skill would have been motivated into incorporate He's teachings because it would increase the security of the wireless network. One of ordinary skill would have been motivated into incorporate Porter's teachings because it would allow devices in the network to be able to adjust their transmission power level to constantly transmit signals of a certain strength—this would allow devices to lower their transmission power when possible and lower the amount of power they use or increase the transmission power, thereby increasing a signal's strength if a mobile device is far from an access point, resulting in better connection between a mobile device and an access point. One of ordinary skill would be motivated to incorporate Hanson's teachings because it is standard practice in the art of networking to disable a connection or electronic device when a signal can no longer be detected and to re-enable it when the signal is detected once more.

**Claim 11:**

As per claim 11, Hanson implicitly discloses loading user data into the first and the second access points in response to the RF signal from the second electronic device being above the predetermined threshold at either of the first and second access points (col 2, lines 7-29).

**Claim 12:**

As per claim 12, Bahl discloses transferring communication to one of the first and second access points in response to the RF signal strength at the other access point falling below the predetermined threshold (col 8, lines 49-59).

**Claim 14:**

As per claim 14, Bahl does not explicitly disclose removing the user data from the first and the second access points in response to the RF signal strength falling below the predetermined threshold at the first and second access points. However, it is common practice in the art of networking not to keep user data once a user has disconnected for security purposes. For example, when a user closes a browser, use data such as passwords and user id's to websites they have logged into do not get retained unless the user specifically chose to have the system do so. IT would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to further modify Bahl's invention according to the limitations recited in claim 14. One of ordinary skill would have been motivated to do so because requiring a user to log in again after they have been disconnected would increase security for a system.


***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
KAMBIZ ZAND  
PRIMARY EXAMINER

  
Ponnoreay Pich  
Examiner  
Art Unit 2135

PP